

## UBS Investment Research

# Nextel Communications, Inc.

## Proposed Spectrum Swap: Working Through The Noise

### FCC Decision on Spectrum Swap Near?

Press reports are indicating that the FCC has endorsed aspects of the Nextel-backed "Consensus Plan" (described in detail in this report) that would result in the spectrum re-alignment at 800 MHz as well as Nextel getting new spectrum in the 1.9 GHz spectrum band.

### Why the Consensus Plan?

We believe the FCC's primary objective is to eradicate interference in the 800 MHz band and that the Consensus Plan is the best approach to achieve this goal. Furthermore, we believe Nextel's participation is essential to the re-banding process.

### How Much Will This Cost Nextel?

We believe NXTL could pay a total of \$2-\$3 Bn (which would amount to an additional \$1.15-\$2.15 Bn over the \$850 MM offered in the Consensus Plan). Given the sell off in NXTL's stock price over the past two months, we believe this extra outlay (of potentially about \$1-\$2 per share above what was originally expected) has already been more than reflected in Nextel's trading value.

### Valuation: Discounted Cash Flow Analysis Performed

For our DCF, which is the basis of our price target, we use a weighted average cost of capital (WACC) of 9.6%, which is based on a 6.5% cost of debt, a 25% target debt ratio, and an 11.5% cost of equity. Our terminal multiple of 6.7 times 2010 EBITDA assuming a 2.5% growth in perpetuity of unleveraged free cash flow.

Highlights (US\$m)	12/02	12/03	12/04E	12/05E	12/06E
Revenues	8,919	10,820	12,851	14,301	15,589
EBIT	1,578	2,522	3,138	3,690	4,257
Net income (UBS)	1,659	1,472	2,260	2,141	2,565
EPS (UBS, US\$)	(0.04)	1.34	1.93	1.82	2.18
Net DPS (UBS, US\$)	0.00	0.00	0.00	0.00	0.00

Profitability & Valuation	5-yr hist. av.	12/03	12/04E	12/05E	12/06E
EBIT margin %	-	23.3	24.4	25.8	27.3
ROIC (EBIT) %	-	15.6	19.3	22.6	25.4
EV/EBITDA x	-	6.5	5.7	4.4	3.6
PE (UBS) x	-	13.2	12.5	13.3	11.1
Dividend yield %	-	0.0	0.0	0.0	0.0

Source: Company accounts, Thomson Financial, UBS estimates. UBS EPS is adjusted by adding back goodwill amortization.

Valuations: based on an average share price that year, (E): based on a share price of US\$24.21 on 14 Apr 2004; Source: Company accounts, Thomson Financial, UBS estimates. UBS EPS is stated before goodwill, exceptionals and other special items.

Colette M. Fleming, CFA

colette.fleming@ubs.com  
+1-212-713 6184

Mark Kinarney

mark.kinarney@ubs.com  
+1 212 713 6170

Risë A. Barron

rise-a.barron@ubs.com  
+1-212-713 2589

## Global Equity Research

United States

Wireless Communications

Rating

**Buy 2**  
**Unchanged**

Price target

**US\$34.00**  
**Unchanged**

Price

**US\$24.21**

RIC: NXTL.O BBG: NXTL US

**15 April 2004**

### Trading data

52-wk. range	US\$29.18-12.24
Market cap.	US\$23.7bn
Shares o/s	980m
Free float	84%
Avg. daily volume ('000)	13,693
Avg. daily value (US\$m)	358.3

### Balance sheet data 12/04E

Shareholders' equity	US\$8.71bn
P/BV (UBS)	3.2x
Net cash (debt)	(US\$5.69bn)

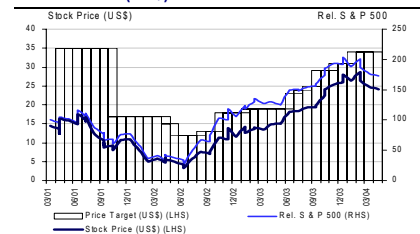
### Forecast returns

Forecast price appreciation	+40.4%
Forecast dividend yield	0.0%
Forecast stock return	+40.4%
Market return assumption	7.1%
Forecast excess return	+33.3%

### EPS (UBS, US\$)

	12/03	12/04E	Cons.	Prior
Q1	0.20	0.41	0.44	-
Q2	0.27	0.49	0.49	-
Q3	0.32	0.53	0.54	-
Q4	0.55	0.50	0.53	-
FY	1.34	1.93	1.99	-

### Performance (US\$)



Source: UBS

[www.ubs.com/investmentresearch](http://www.ubs.com/investmentresearch)

### ANALYST CERTIFICATION AND REQUIRED DISCLOSURES BEGIN ON PAGE 21

UBS does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

## Summary

On November 21, 2001, Nextel submitted a White Paper to the Federal Communications Commission (FCC) recommending changes to the current 700 MHz, 800 MHz, and 900 MHz spectrum band plans. The White Paper addressed a number of issues, the most serious of which is interference to public safety communications from the operations of cellular systems in the 800 MHz band.

In March 2002, the FCC issued a Notice of Proposed Rulemaking to solicit opinions on how this interference can be eliminated. Since that time, the FCC has been working through alternative plans. Most notably, Nextel along with members of the public safety community, submitted their "Consensus Plan" while the CTIA (Cellular Telecommunications and Internet Association) submitted an alternative plan which favors the use of "Best Practices" guidelines.

Press reports are indicating that the FCC has endorsed aspects of the Consensus Plan (described in detail below) that would result in the spectrum re-alignment at 800 MHz as well as Nextel getting new spectrum in the 1.9 GHz spectrum band.

On April 8, 2004, the Washington Post reported that, according to its FCC sources, three of the five commissioners (Chairman Michael K. Powell, Kevin J. Martin, and Michael J. Copps) approved a plan which could require Nextel pay more than the \$850 million it originally proposed in the Consensus Plan to pay for the current occupants in the 800 MHz band to relocate. At the CTIA trade show in Atlanta in March 2004, Nextel's Chief Regulatory Officer, Robert Foosaner, said that Nextel may be willing to pay more than the \$850 million depending on how much spectrum it ultimately has to relinquish.

The Washington Post reported that the situation is still "fluid" and that aspects of the plan are still being finalized. We believe that a decision on this issue could be announced any day.

We believe that the FCC's primary objective is to eradicate interference in the 800 MHz band and that the Consensus Plan is the best approach to achieve this goal. Furthermore, we believe that Nextel's participation is essential to the re-banding process. Also, we believe that Nextel should have built up a certain amount of goodwill since it has been working with the FCC on this issue for over two years.

We don't believe "cash is king" in this situation. Despite Verizon Wireless' announced intention to bid at least \$5 billion for the 1.9 GHz spectrum that is part of the Consensus Plan should it be put up for auction, we believe that Nextel will prevail in obtaining the 1.9 GHz spectrum as part of the proposed spectrum swap, for all the reasons detailed above.

We do believe, however, that NXTL will be required to pay more than the \$850 MM it had intended, but it may also keep some of the spectrum (i.e., the 4 MHz of 900 MHz spectrum) it had offered up. For reasons outlined in this note, we believe NXTL could pay a total of \$2 - \$3 billion (which would amount to an additional \$1.15 billion to \$2.15 billion over the \$850 million offered in the Consensus Plan).

### **So what does this mean for the stock price?**

Given the sell off in Nextel's stock price over the past two months, we believe this extra outlay (of potentially about \$1-\$2 per share above what was originally expected) has already been more than reflected in Nextel's trading value. Therefore, we believe that the downside from an announcement on this issue is limited. In fact, we would argue that Nextel's stock could rebound once the facts on this issue are known and investors can go back to focusing on the strong fundamentals at Nextel.

We also believe that investors are concerned that Nextel's free cash flow over the next few years will be hampered by not only the additional outlay for the spectrum, but also for the cost to build out the spectrum with a next generation technology. We believe that the cost of a next generation network will depend on what technology is chosen, what services are offered, and what time period the deployment takes place over.

Assuming Nextel gets the 10 MHz of nationwide 1.9 GHz spectrum from the spectrum swap, we believe that it would be at least a year (and possibly two years) before it could begin deploying it. First, it would have to clear the existing microwave users. Also, Nextel is still testing next generation technologies and, based on its field trials, it will make a decision as to what technology to deploy.

We have not specifically built in additional capital expenditures for next generation into our Nextel model and, therefore, it has been argued that we may be overestimating the free cash flow from Nextel over the next few years. This may turn out to be true; but, we would counter that we have also not built in the additional revenue streams and income that would come from additional capital deployed (thereby underestimating cash flow in the outer years). We believe that it is unfair to assume that Nextel pays a couple of billion dollars for spectrum then increases its capital expenditures to deploy a new generation technology with no incremental income.

Also, in our model we are using the free cash flow over the next couple of years to pay down debt, including Nextel's bank credit facility. To the extent that some of this free cash flow is used to deploy a next generation technology, we do not believe that it will have a significant impact to our earnings estimates (the additional interest expense after tax would be minimal, especially since we are building significant cash balances in 2006 and beyond).

We will update our model accordingly as the specifics of the spectrum swap proposal are finalized and we have more clarity on the timing and choice of Nextel's next generation technology. However, we do not anticipate that these changes would have a material impact on our Nextel valuation. Therefore, we are re-iterating our Buy-2 rating and our \$34 price target. We believe that the weakness is unwarranted and we would be buyers of the stock at this level.

### **This is a complicated issue...or is it?**

The original White Paper on Nextel's proposed spectrum swap was submitted to the FCC in November 2001. Since then, there have been numerous filings on this issue. We have read the bulk of the filings, including the various valuation arguments (i.e., Kane Reece, Sun Fire Group LLC, and Dr. Rosston's "Economic Analysis of the Kane Reece Spectrum Valuation" report). The sheer amount of information on this topic can be dizzying. However, we believe that it can be simplified into one question: "How does the FCC best solve the interference issue in the 800 MHz band?"

We believe that the Consensus Plan (backed by Nextel and the majority of the affected parties, including public safety) is the best approach to solving the interference issue in the 800 MHz band. Furthermore, we believe that Nextel's participation is essential to the re-alignment of the 800 MHz band since it occupies a large portion of the spectrum that would be subject to relocation. Finally, we believe that auctioning off the 1.9 GHz spectrum does nothing to solve the interference issue at 800 MHz and, therefore, is just more noise. We believe that it could be argued that if it weren't for Nextel's spectrum swap proposal to begin with, the 10 MHz of 1.9 GHz frequencies would not even be available. We believe that the FCC reclaimed these frequencies (from MSS and "unlicensed spectrum") for its potential use in the Nextel swap proposal.

We believe that it is also important to point out that while Nextel is a primary contributor to the interference with public safety (along with, to a lesser degree, cellular operators), all of the operators are operating within their licensing regulations. Despite the parties playing by the rules, the interference still exists. Accordingly, we believe it would be tough for the FCC to force Nextel to move from its existing 800 MHz spectrum allocation without negotiation.

So, assuming that re-aligning the 800 MHz frequency band is in the best interests of public policy, how does the FCC do it in a way that is fair and reasonable to all parties involved? In the following sections, we attempt to analyze the value of the spectrum given up by Nextel, including the costs of re-tuning its own frequency and that of the other affected parties. Also, we compare this to the consideration received by Nextel (i.e. the 10 MHz of nationwide 1.9 GHz frequency).

## **Valuing Consideration Given Up by Nextel**

Nextel owns, on average, 18.5 MHz at 800 MHz across U.S. markets, which includes a 10 MHz contiguous block. Nextel's plan calls for the company to contribute the non-contiguous 8.5 MHz of spectrum at 800 MHz along with 4 MHz of spectrum in each of the 700 MHz and 900 MHz spectrum bands. Additionally, Nextel will include \$850 million toward the cost of relocating 800 MHz public safety users and other affected parties to their new frequency bands. In return, Nextel will acquire 6 MHz of contiguous spectrum at the 800 MHz band (i.e., incur a net loss of 2.5 MHz of spectrum at the 800 MHz band) and 10 MHz of spectrum at the 1.9 GHz level.

Press reports indicate that the FCC staff has rejected Nextel's proposal to include spectrum at 700 MHz and 900 MHz possibly in return for a larger financial commitment. In our analysis, we have shown the estimated value of the total cost to Nextel under three scenarios: (1) the proposed "Consensus Plan", (2) the proposed "Consensus Plan" without the 900 MHz spectrum and, (3) the proposed "Consensus Plan" without the 700 MHz and 900 MHz spectrum. We have detailed these scenarios graphically in Charts 1-3. Below, we discuss the various cost elements. We should point out that the estimated costs and spectrum valuations shown in the tables were provided by Nextel. However, we have read the supporting documentation in the Sun Fire Group LLC report and believe that there is sound reasoning behind the numbers.

Let's start with the proposed "Consensus Plan." First, we add the \$850 million in cash Nextel is proposing to contribute to cover the re-tuning costs of the other affected parties (with the majority related to public safety). Next, we have added an estimated cost by Nextel of about \$150 million for additional filters. The third cost item relates to the additional restrictions on the use of a portion of Nextel's existing spectrum (detailed in Appendix F of the Supplemental Comment of the Consensus Parties: WT Docket No. 02-55 dated December 24, 2002).

Specifically, Nextel will have certain restrictions on the use of its spectrum in the 861-863 MHz band (this is part of the 10 MHz of contiguous spectrum that Nextel already owns). Nextel believes that these restrictions equate to about 1 MHz of diminished spectrum, or about \$575 million (which we believe is a reasonable estimate).

According to Nextel's Consensus Plan, the company is contributing about 2.5 MHz of spectrum at 800 MHz (on a net basis; Nextel is giving up 8.5 MHz of spectrum and only receiving 6 MHz). Nextel values this spectrum at about \$1.44 billion, or about \$2.02 per average MHz per POP. To arrive at this value, Nextel used prices paid in its transaction with Chadmoore in February 2002, which primarily involved 800 MHz frequency. In the Chadmoore transaction, Nextel paid \$130 million for, on average, roughly 0.64 MHz spectrum covering about 100 million POPs, which equates to approximately \$2.02 per MHz per POP.

Since this is a relatively recent transaction and we believe that the POPs acquired are representative of the national average, we believe that it is reasonable to apply this valuation to the net spectrum that Nextel is contributing.

As discussed later, recent transactions for 1.9 GHz spectrum (i.e., Cingular/Nextwave and Verizon Wireless/Northcoast) are about \$1.64 per MHz per POP. We believe that it is reasonable to assume that the 800 MHz spectrum is worth more on a dollar per MHz per POP basis than the recent prices paid for 1.9 GHz spectrum because of the inherent superiority of the spectrum. Namely, the 800 MHz spectrum Nextel is giving up offers better propagation characteristics than 1.9 GHz spectrum. This superior propagation allows a carrier to cover more terrain from a cell site than it would be able to using spectrum at 1.9 GHz.

It has been argued by Verizon Wireless that the 6 MHz of contiguous spectrum that Nextel would be receiving as part of the swap is worth more than the 8.5 MHz of non-contiguous spectrum. This may be true for an operator that has deployed CDMA technology (since contiguous spectrum is essential for CDMA) or for a company starting from scratch, but we do not believe that it is true for Nextel since iDEN has been optimized for use in non-contiguous spectrum.

On March 18, 2004, Nextel submitted an expert report by Dr. Rosston, who is the Deputy Director of the Stanford Institute for Economic Policy Research and formerly served as Deputy Chief Economist of the Commission, as Acting Chief Economist of the Common Carrier Bureau, and as a senior economist in the Office of Plans and Policy. This was basically a rebuttal argument to the valuations and claims made in the Kane Reece study (supported by Verizon Wireless).

We agreed with the majority of findings in the Rosston report. In particular, we concur with Dr. Rosston's assessment (page 4 of report dated March 18, 2004) that "the premium for contiguous spectrum depends on its expected use, the costs of implementing a new system needing contiguous spectrum, the transition costs, and the different services capable of being provided." Also, we agree with Dr. Rosston's view that the "incremental value of contiguous spectrum is likely to be low to Nextel because of its substantial investment in iDEN" (see page 5 of the March 18, 2004 filing).

Nextel's Consensus Plan calls for it to also cede 4 MHz in the 900 MHz band. We believe that the FCC may prefer a larger financial package in lieu of taking Nextel's 900 MHz spectrum. In fact, we believe that the removal of the 900 MHz spectrum from the proposed package may be the primary reason for the increased payment we believe that Nextel will be asked to pay. But, should the frequency be included, Nextel believes it is worth about \$1.64 billion (\$1.44 per MHz per POP). Nextel comes to this value by using the price it paid in January 2003 for 900 MHz spectrum acquired from Neoworld. According to Nextel, the

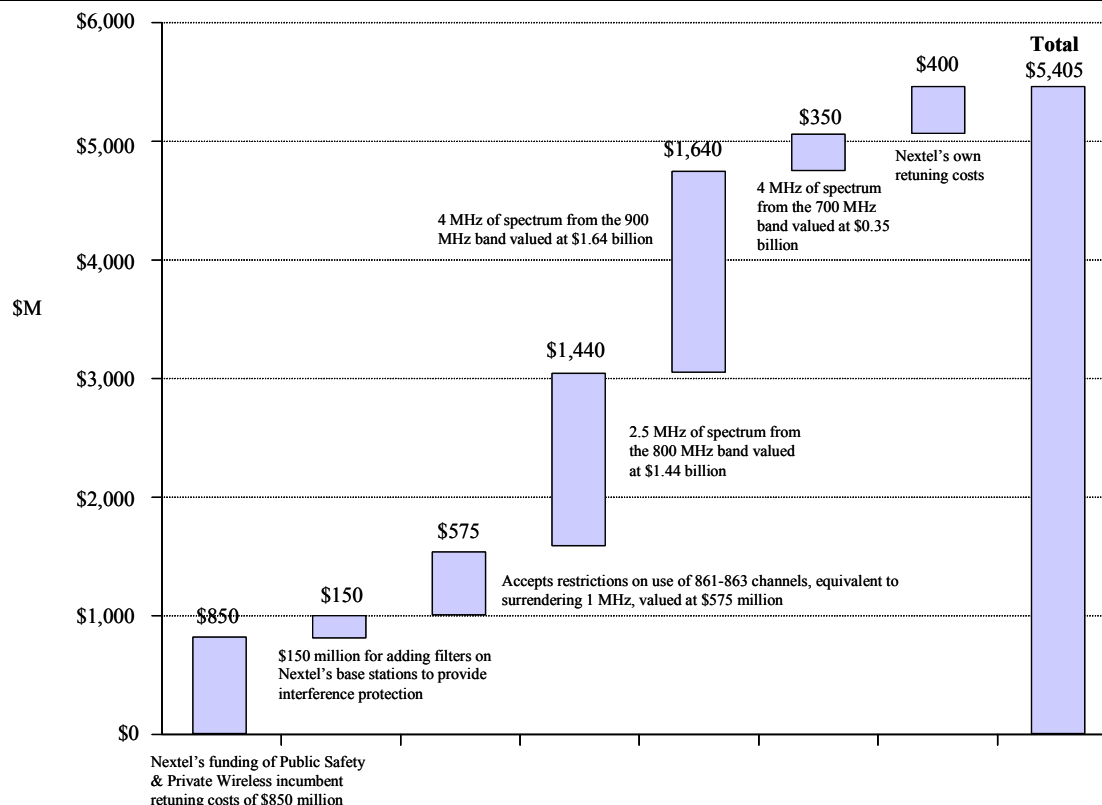
Neoworld transaction involved nearly 200 million POPs in geographically diverse markets of varying size. Consequently, Nextel believes that the price per MHz per POP it paid for this recent transaction is a useful proxy for the 900 MHz spectrum it proposes to contribute as part of the Consensus Plan.

The Consensus Plan also calls for Nextel to remit 4 MHz in 700 MHz band. Nextel acquired most of this spectrum in the FCC's 700 MHz Guard Band spectrum auctions (Auction 33 and Auction 38 were completed in September 2000 and February 2001, respectively). A small portion of Nextel's 700 MHz holdings were acquired in a private market transaction. In total, Nextel paid about \$351 million for the licenses and, given the relatively recent nature of the auctions and the modest total value for the spectrum, we are using this value in our computations.

Lastly, Nextel has estimated its own retuning costs at approximately \$400 million. Adding all of these variables together yields a total estimated contribution of about \$5.4 billion for the Consensus Plan. In return Nextel is proposing to receive 10 MHz of nationwide 1.9 GHz spectrum. Verizon has stated that it is prepared to submit an initial, opening bid of \$5 billion for this spectrum should the spectrum be auctioned instead of being given to Nextel. However, as is shown in Chart 1, Nextel believes that its consideration is in the \$5 billion range as well; however, it is a combination of cash, assets and costs incurred to fix the interference issue rather than just hard cash.

Is cash king? We don't think so. Again, we think the FCC has to go back to the original goal of this whole process, which was to solve the interference in the 800 MHz band. Verizon Wireless's cash does little to solve this, especially if Nextel does not agree to swap its spectrum in the 800 MHz band.

**Chart 1: Estimated Contribution by Nextel: Consensus Plan without Modifications**



Source: Company reports and UBS

In Chart 2, we detail what the figures would look like if the 900 MHz spectrum is not included in the consideration. Under this scenario, Nextel's estimated contribution would only be about \$3.8 billion. To the extent that the FCC concludes that the fair value of the spectrum Nextel would receive was in the \$5 billion range, Nextel could have to pay the difference, which would be about another \$1.2 billion (in addition to the \$850 million, for a total of just over \$2 billion). This is consistent with figures that have been floating in the press.

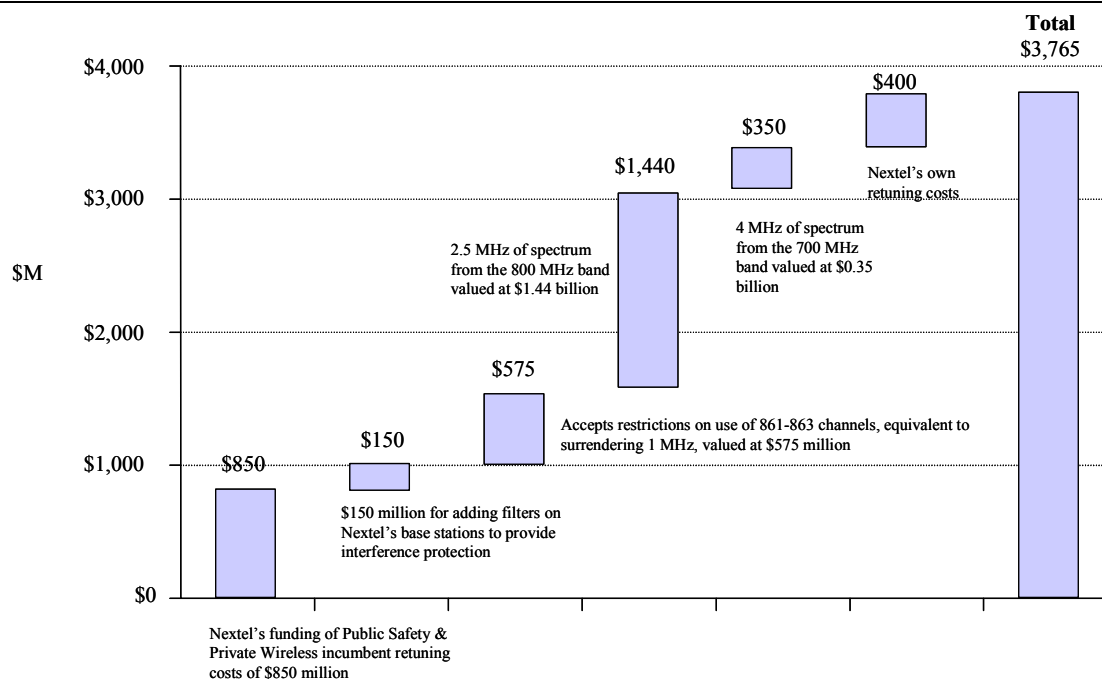
Finally, in Chart 3, we detail what the figures would look like if both the 900 MHz and the 700 MHz spectrum are excluded from the assets contributed by Nextel. In this case, Nextel's estimated contribution would only be about \$3.4 billion, meaning that in order to reach \$5 billion Nextel could have to pony up an additional \$1.6 billion (for a total of about \$2.5 billion).

We believe that the FCC would be more comfortable with a higher upfront payment by Nextel, in lieu of its contribution of the 900 MHz frequency (Scenario 2). We think that one of the FCC's greatest worries has been that the \$850 million would not be enough to complete the re-banding at 800 MHz and then who would pay for the additional costs if the money ran out half-way through the process?



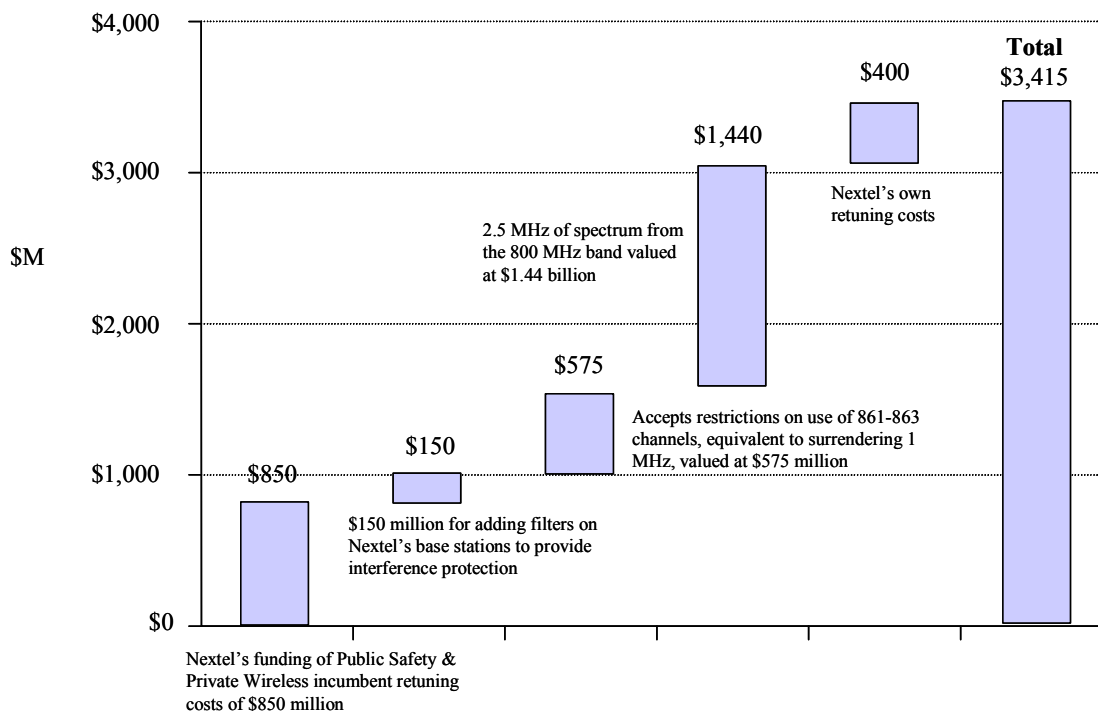
We believe that it makes sense for the FCC to include the 700 MHz spectrum (4 MHz) that Nextel has proposed contributing, since we believe that public safety is interested in this spectrum.

**Chart 2: Estimated Contribution by Nextel: Consensus Plan Minus the 900 MHz frequency**



Source: Company reports and UBS

**Chart 3: Estimated Contribution by Nextel: Consensus Plan minus the 900 MHz and 700 MHz Frequencies**



Source: Company reports and UBS

## Valuing Consideration Received by Nextel

One of the most contentious points of the Consensus Plan is the opponents' concern that Nextel will garner a "windfall" as a result of acquiring the 10 MHz of contiguous spectrum at 1.9 GHz. Unfortunately, as the FCC itself has recognized, the market for spectrum is highly volatile. Spectrum value volatility is caused by the wide range of variable factors, including the supply of comparable alternative spectrum at any given point in time, the propagation characteristics of the spectrum band in question (i.e., 800 MHz versus 1.9 GHz spectrum), and the extent the spectrum is presently encumbered by other users, for example. Calculating an estimate of the relative values of the spectrum involved in the Consensus Plan, therefore, is subject to a significant degree of uncertainty.

In this section, we attempt to value 10 MHz of nationwide 1.9 GHz spectrum. We have read the two primary valuation studies before the Commission – one supported by Verizon Wireless (Kane Reece) and one backed by Nextel (Sun Fire Group LLC). We have also read the counter-argument to the Kane Reece valuation study by Dr. Rosston.

We found Dr. Rosston's report the most interesting and we agree with many of his conclusions. **Bottom line, spectrum is only worth what a good operator**

**can make it worth.** At different points in times there are varying demand and supply constraints, which affect spectrum values. Below, we detail some of the recent spectrum transactions. In addition, we discuss why other than Nextel, we believe that only Verizon Wireless may be in the market for additional spectrum at this time. Furthermore, Verizon Wireless may not simply be in the market for nationwide spectrum, but could also be attempting to keep Nextel from getting it.

There have been two recent private market transactions involving 1.9 GHz spectrum, the Cingular purchase of NextWave spectrum and the Verizon purchase of NorthCoast spectrum.

Simplistically, in the Cingular/NextWave transaction, Cingular paid \$1.4 billion for mostly 10 MHz licenses across about 81 million POPs, or about \$1.63 per average MHz per POP. In the Verizon/Northcoast transaction, Verizon paid \$750 million for 10 MHz licenses at 1.9 GHz across 45.8 million POPs, or about \$1.64 per average MHz per POP. Based on these transactions, with very similar per MHz per POP values, the implied value of the 10 MHz of contiguous spectrum at 1.9 GHz that Nextel will receive under the Consensus Plan would be roughly \$4.7 billion. However, we believe that this may be overestimating the value for the following reason.

In valuing spectrum, we believe that it is widely accepted that spectrum in larger markets is more valuable than spectrum in rural markets. The price/MHz-POP of a transaction involving large markets tends to be significantly higher than the price/MHz-POP of a transaction involving small or mid-size markets or a blend of different size markets. A reason for this phenomenon set forth by Nextel in its filing with the FCC is that there are greater efficiencies in operating in larger markets; e.g., with more prospective customers over which to spread fixed costs and generate revenue, marketing and infrastructure costs can be spread out over a greater number of customers.

These efficiencies, in turn, generally make larger markets more profitable on a per-POP basis, which in turn tends to result in higher per MHz-POP prices. We concur with this premise and, accordingly, believe it is incorrect to estimate the value of a nationwide block of spectrum by relying solely on the price/MHz-POP of a transaction that did not include a representative distribution of different market sizes or geographic diversity.

In the Verizon Wireless/Northcoast transaction, there were about 916K POPs per BTA sold. In the Cingular/NextWave transaction, there were 2.384 million POPs per BTA sold. In the continental U.S., there are 487 BTAs in areas that encompass the population of 285 million people. Since Nextel is acquiring a nationwide license, its markets have an average of only about 585K people per BTA.

A problem with our initial analysis is that we attempted to extrapolate the value of a nationwide block of spectrum from private market spectrum acquisitions involving principally large markets. In Nextel's valuation study, the company uses a "tiered" pricing model to generate an average spectrum price for a combination of large and small markets. The company believes this method yields a reasonable estimation of a nationwide block of spectrum based on private market transactions.

The following transactions were used in Nextel's analysis to come to an average national spectrum price: (1) Northcoast transaction consisting of 50 BTAs with an average value of \$1.58 per MHz per POP, (2) Pittsburgh, PA BTA transaction with an average value of \$0.42 per MHz per POP, and (3) Lebanon, NH transaction with an average value of \$0.25 per MHz-POP. (We believe Nextel's figure of \$1.58 per MHz per POP for the Northcoast transaction slightly differs from our analysis of \$1.63 per MHz per POP due to different population figures used.)

In its "tiered" pricing model, Nextel arrives at a value of roughly \$3.5 billion for 10 MHz of nationwide contiguous spectrum at 1.9 GHz.

### **What Would the 1.9 GHz Spectrum Garner In An Auction?**

Some of the Consensus Plan opponents prefer the 1.9 GHz spectrum be auctioned with the proceeds used to pay for the 800 MHz spectrum re-tuning. The first impediment to this idea is that FCC spectrum auction proceeds, by law, must be turned over to the United States Treasury Department (i.e., the proceeds are not for the FCC to use). Accordingly, the FCC would need an act of Congress that would allow it to allocate these funds for 800 MHz re-tuning to move forward with this idea.

We believe the second possible problem of holding an auction is that Nextel may not cooperate with the 800 MHz re-tuning if it were not to receive the 1.9 GHz spectrum as part of the final agreement. According to a Bloomberg article, on March 26, 2004, Senator Ted Stevens (Senate Appropriations Committee Chairman) wrote a letter to FCC in which he indicated that Nextel must be given replacement spectrum if it relinquishes spectrum. Also, Senator Stevens wrote that the 1.9 GHz spectrum, which Nextel covets (and is part of the Consensus Plan) does not have to be auctioned, which is the contention of the CTIA and Verizon Wireless.

It is interesting to note that Verizon Wireless and others are demanding that this spectrum be auctioned, when the 800 MHz cellular licenses were initially given away for free in the early 1980s.

But, all that aside, what is the 10 MHz of 1.9 GHz spectrum worth? We believe it is important to look at the carriers that may be interested in bidding if an auction was held.

First, we doubt whether a new entrant in the wireless space would be able to fund a business plan that would include a potential multi-billion dollar spectrum purchase as well as a nationwide buildout at this late date.

We believe that Sprint PCS and T-Mobile USA have enough spectrum currently. Sprint PCS is an all-digital carrier using highly efficient CDMA technology. T-Mobile USA is also an all-digital carrier with modest penetration rates to date. Given advancements in technology—Sprint PCS moved to cdma2000 1XRTT which roughly doubles its voice capacity while GSM adaptive multi-rate (AMR) technologies are also enhancing capacity—we wonder what either of these carriers would be willing to pay for an extra 10 MHz, especially on a nationwide basis.

In terms of Cingular and AT&T Wireless, we believe should their merger transaction be approved (which we believe it will), the carrier will have more than enough spectrum. Moreover, even if it were interested in the 10 MHz, we wonder what Cingular would be willing to pay after its sizeable outlay for AT&T Wireless.

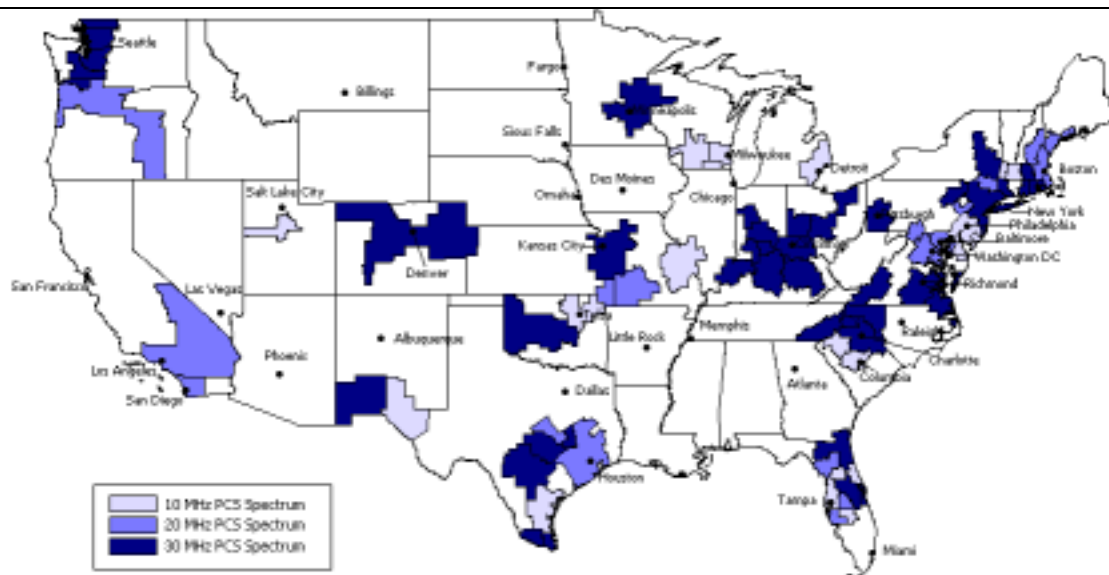
That brings us to Verizon Wireless. In a letter to John Muleta, Chief of the Wireless Telecommunications Bureau, dated April 8, 2008, Verizon Wireless stated that it was prepared to submit an initial, opening round bid for \$5.0 billion. This bid is contingent on the Commission's designation of the bands for a nationwide Broadband PCS license and the adoption of the PCS rules for the spectrum. In the letter, Verizon Wireless stated that "no private sale can be expected to yield as much value to the Government, or place spectrum with the party that will put it to the highest and best use".

We believe that the FCC's primary objectives are to solve the interference problem in the 800 MHz and get public safety more spectrum with a plan that is self-financing. So, contrary to how Verizon Wireless is playing this out in the press, we don't think the issue is solely about money. Also, Verizon Wireless may not need 10 MHz of nationwide frequency at this time.

We believe that there are alternatives for Verizon Wireless to get spectrum in the markets that it actually needs it, which may not be nationwide. For instance, Nextwave still holds licenses in several key markets (see Chart 4). We would argue that Verizon could possibly augment its spectrum position for less than the \$5 billion that it has stated it would bid for the 10 MHz nationwide 1.9 GHz spectrum. Verizon's \$5 billion bid could be part of the price it is willing to pay to keep Nextel from getting the spectrum. In which case, it would not clearly fall under the guidelines of "placing the spectrum with the company that will put it to the highest and best use."

In summary, we think this is really a two man battle between Verizon Wireless and Nextel. In the end we believe that Nextel will prevail because its cooperation is likely to be essential if the interference issue at 800 MHz is to be solved in a timely fashion. Also, we believe that over two years working with the Commission on this issue has hopefully built up some goodwill.

**Chart 4: Remaining NextWave Spectrum**



Source: FCC reports and UBS

## Alternative Plans

Aside from the Consensus Plan, there have been alternatives offered by parties (such as the CTIA) opposed to the Consensus Plan. Over the past few years, public safety agencies have sought to mitigate interference by applying a set of “Best Practices” adopted by the public safety community and the wireless industry in 2001. These best practices involve identifying the locations of interference incidents, identifying the wireless carrier or carriers contributing to the interference, and negotiating with these carriers concerning ways to mitigate the problem. The problem with this approach is twofold. First, despite the Best Practices, it is our understanding that incidents of interference have increased since 2001. Second, according to Nextel, managing the resolution of these problems impose substantial burdens on public safety agencies in terms of loss staff time and direct financial costs.

Nextel indicates that the Public Safety community opposes the CTIA plan because it would not remedy 800 MHz interference and it would impose unfunded burdens on public safety. In contrast, we believe the Consensus Plan would eliminate interference and improve public safety communications.

Nextel also said that the Public Safety community opposes an alternative plan put forth by Motorola that includes a series of technical measures in conjunction with Best Practices. The Public Safety community believes Motorola's plan would be reactive to interference problems as they occur and would involve significant and costly public safety system upgrades.

## **Background**

In this section, we provide a background on Nextel's current spectrum holdings. As described in detail below, Nextel currently has licenses for both contiguous and noncontiguous spectrum across three different bands (700 MHz, 800 MHz, and 900 MHz). If Nextel's Consensus Plan proposal is enacted, it would swap its frequencies in the 700 and 900 MHz bands, and certain 800 MHz frequencies, in exchange for a larger block of contiguous channels in the 800 MHz band and 10 MHz of nationwide spectrum at the 1.9 GHz frequency.

### **SMR (Specialized Mobile Radio) Background**

The Specialized Mobile Radio (SMR) service was first established by the Federal Communications Commission (FCC) in 1979 to provide for land mobile communications on a commercial basis. In total, 21.5 MHz of SMR spectrum is available in the 800 MHz SMR band, or 26.5 MHz, including the Business I/LT (Industrial Land and Transportation) spectrum. We graphically depict the allocation of SMR, Public Safety, and I/LT spectrum across the 800 MHz band in Chart 6.

While the 800 MHz band plan may look a bit confusing, there was a "method to the madness" at the time it was developed. When the 800 MHz band plan was devised in the 1970s and early 1980s, the technology available at that time did not readily accommodate the use of contiguous spectrum at a single base station site. Accordingly, the commission did not make contiguous spectrum available to each radio service. Instead, the channel pairs made available to each radio service were "interleaved" between channels allotted to the other radio services.

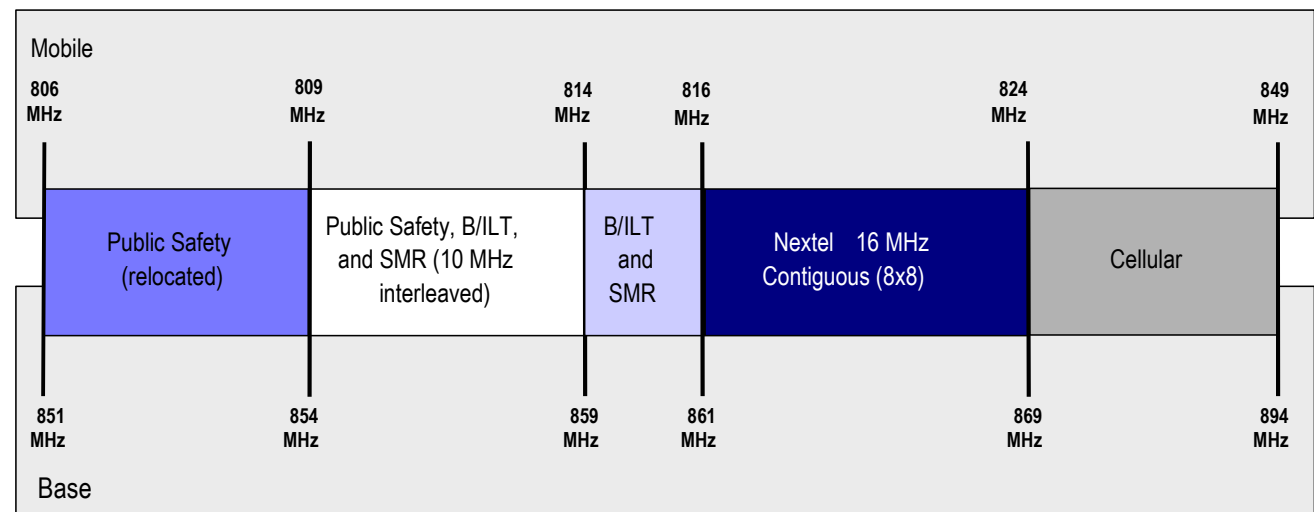
Therefore, the commission's approach of allocating and licensing different services on adjacent, interleaved, and mixed spectrum in the 800 MHz band worked as long as all licensees built systems using the same basic "noise-limited" design architecture: analog, high-site, high-power configurations without frequency reuse. Over the past decade, however, commercial land mobile systems as well as cellular operators (adjacent to the public safety channels) have moved to system designs featuring multiple, low-power base stations with intensive frequency reuse and mobile hand-off from cell-to-cell throughout a geographic area to serve many more users with the same quantity of spectrum.

It is this mixing of low-site, low-power systems (cellular) with high-site, high-power systems (public safety) that is causing interference. These differing system architectures can result in locally robust CMRS (commercial mobile

radio services) signals being much stronger than distant, less robust, public safety transmissions, particularly within a few hundred meters of the CMRS base station where the commercial signal is strongest. Accordingly, Nextel has introduced a plan to address the interference problem.

In simple terms, the re-banding would move the high-site, high power configurations (i.e. public safety) to the lower portion of the 800 MHz band, with the cellular systems (including Nextel) occupying the upper portion of the band (See Chart 5)

**Chart 5: Spectrum Swap as Proposed by Nextel—800 MHz Spectrum Adjacent to Cellular Spectrum**



Source: Company reports

### SMR Frequency – Today

The SMR frequency band can be broken down into the following categories: 1) upper 200 channels; 2) general category; 3) lower 80 channels; 4) business I/LT; and 5) public safety.

#### Upper 200 Channels

The “upper 200 channel” spectrum is 10 MHz of contiguous spectrum, which was subject to mandatory relocation of the incumbent providers following the licensing of this spectrum in 1997. Nextel (and its affiliate Nextel Partners) owns the vast majority of this spectrum throughout the United States.

#### General Category

The general category spectrum consists of 7.5 MHz of contiguous spectrum. The FCC sold this spectrum in Auction 34 (<http://wireless.fcc.gov/auctions/34/>), which began on August 16, 2000, and was completed on September 1, 2000. In total, Nextel won 800 licenses (78% of the total licenses won) in areas that



encompass 248.7 million POPs (about 94% of the country). In Chart 6, this spectrum is marked in light blue and is located from 806-809.75 MHz and 851-854.75 MHz.

### **Lower 80 Channels**

In December 2000, the FCC concluded its auction of 800 MHz SMR “lower 80” channels (Auction 36). Similar to the prior SMR auctions, Nextel won the vast majority of the licenses. Unlike the upper 200 and the general category, which are contiguous blocks of spectrum, the “lower 80” channels are intertwined with the business I/LT spectrum. In Chart 6, the “lower 80” channel spectrum is marked in dark blue and is shown as the 10 blocks of eight channels, which are intertwined with the spectrum in white. In total, the “lower 80” channels equate to 4 MHz of frequency. For more information on the lower 80 channels, please see <http://wireless.fcc.gov/auctions/36/>.

### **Business I/LT**

The business I/LT spectrum comprises 5 MHz of spectrum in total. In Chart 6, the business I/LT spectrum is marked in white and is shown as the 10 blocks of 12 channel spectrum, which is intertwined with the “lower 80 channel” spectrum (shown in dark blue).

The business I/LT spectrum historically has been used by utility companies such as Consolidated Edison (Con Ed). Prior to late 2000, Nextel was not permitted to use any business I/LT spectrum for commercial services. However, in November 2000, the FCC ruled that the business I/LT spectrum could be utilized for commercial use. We believe this was a clear positive for Nextel, since the business I/LT channels are intertwined with the “lower 80” channel spectrum (which Nextel largely owns).

### **Public Safety**

In Chart 6, the public safety spectrum is marked in white and is shown as the 3.5 MHz block of contiguous spectrum (809.75-811.5 MHz and 854.75-856.5 MHz). This block of public safety spectrum is sandwiched between the light blue (general category) spectrum and the intertwined dark blue and white spectrum (the lower 80 and the I/LT) spectrum.

Public safety has another 6 MHz block of contiguous block of spectrum in the 800 MHz band that is not shown in Chart 6, but resides just above the upper 200 channel spectrum (specifically 821-824 MHz and 866-869 MHz). This block of public safety spectrum sits right above Nextel’s contiguous spectrum block of 10 MHz (the upper 200 channels) and right below the cellular spectrum. It is this 6 MHz block of spectrum that Nextel is proposing to exchange with public safety, in return for its spectrum in the general category and lower 80 channels.

In addition to the 800 MHz spectrum, there are currently 5 MHz of SMR spectrum allocated in the 900 MHz band (of which Nextel owns approximately



Best Practices Guide that was released in December 2000 to mitigate this type of interference, “Interference reports continue to increase.”

On August 7, 2002, Nextel Communications submitted a new consensus proposal, which we believe was a significant positive development as it represented a compromise agreement between itself, about 80% of the private wireless carriers affected by this proposal, and the politically potent public safety organizations. Specifically, from the public safety community, the consensus plan was endorsed by (among others) the Association of Public Safety Communications Officials-International, the International Association of Fire Chiefs, the International Association of Chiefs of Police, the Major Cities Chiefs Association, the Major County Sheriffs’ Association, and the National Sheriffs’ Association.

At the time, however, key issues still remained—namely, where was the funding to implement the plan coming from above and beyond the \$500 million Nextel had pledged. At the time, Nextel’s updated plan called for fewer private carrier relocations thereby possibly mitigating costs.

On December 24, 2002, Nextel—in conjunction with its consensus parties—presented a detailed filing with the FCC that provided additional information in support of its plan for improving public safety communications in the 800 MHz band. The supplemental filing detailed the timeline and mechanics of the proposed realignment process, specifically addressing the relocation and retuning of incumbent licensees at 800 MHz, and the rights and obligations of licensees during and after the realignment. Specifically, the filing indicated that the retuning would be completed over a 42-month period. The consensus parties have addressed additional interference protections for licensees after the realignment process and how the plan would be implemented in border areas such as Mexico and Canada. Moreover, Nextel increased to \$850 million (from \$500 million) its commitment to assist in the realignment. Nextel’s funding commitment remains contingent upon the FCC licensing to Nextel a 10 MHz block of contiguous spectrum at 1.9 MHz. It is our understanding that the \$850 million would be allocated at \$700 million for public safety relocation and \$150 million for private wireless relocation.

On February 10, 2003, the Cellular Telecommunications & Internet Association (CTIA) filed comments with the FCC opposing Nextel’s proposal for three main reasons. First, the CTIA said that while the industry remains committed to resolving interference issues in the 800 MHz band, it believes other solutions are available, which are less difficult and more timely. The CTIA’s plan would focus on case-by-case mitigation, providing immediate relief for affected parties. Second, the CTIA suggests that, if necessary, the 800 MHz band be restructured within that band to minimize interference. Third, the CTIA believes that the 700 MHz band, where 24 MHz of spectrum has already been reserved for public safety, should be the long-term solution for public safety communications. In fact, it is our understanding that earlier on in the process,

private wireless (led by the Industrial Telecommunications Association [ITA]) entities tried to develop a plan with Cingular Wireless that would have moved the public safety operations to the 700 MHz band, but the plan would have required congressional approval.

In May 2003, a group of large utility companies, cellular competitors of Nextel and small SMR providers filed an alternative proposal to the Consensus Plan, proposing to solve ongoing public safety interference through “best practices” and technical measures among 800 MHz licensees, with no realignment of the spectrum bands.

In November 2003, NCTL notified the FCC that to satisfy its relocation commitment, it would deposit \$100 million in cash in an escrow account and would secure the remaining \$750 million commitment through one or more irrevocable stand-by letters of credit.

---

## ■ Nextel Communications, Inc.

Nextel Communications Inc. offers a differentiated, integrated package of digital wireless communications services under the Nextel brand name, primarily to business users. The company's digital mobile network utilizes a single transmission technology. This digital technology, developed by Motorola, Inc., is referred to as the integrated Digital Enhanced Network, or iDEN. Nextel and Nextel Partners (its affiliate that serves secondary markets) cover about 197 of the top 200 U.S. markets.

## ■ Statement of Risk

Local Number Portability (LNP) went into effect on November 24, 2003, allowing customers in the top 100 Metropolitan Statistical Areas to keep their phone number when switching between providers of wireless and/or wireline communications. Beginning May 24, 2004, LNP will be offered to customers throughout the U.S. LNP creates additional competitive pressure in an already competitive marketplace.

NXTL uses a proprietary technology called iDEN created by Motorola. This technology offers packet data applications and, as such, is defined as a 2.5G air interface. However, a risk to NXTL is the absence of a defined migration path by Motorola of the iDEN technology to 3G and the associated 3G data speed rates.

#### ■ Analyst Certification

Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

## Required Disclosures

This report has been prepared by UBS Securities LLC, an affiliate of UBS AG (UBS).

### Global ratings: Definitions and allocations

UBS rating	Definition	UBS rating	Definition	Rating category	Coverage <sup>1</sup>	IB services <sup>2</sup>
<b>Buy 1</b>	FSR is > 10% above the MRA, higher degree of predictability	<b>Buy 2</b>	FSR is > 10% above the MRA, lower degree of predictability	<b>Buy</b>	41%	36%
<b>Neutral 1</b>	FSR is between -10% and 10% of the MRA, higher degree of predictability	<b>Neutral 2</b>	FSR is between -10% and 10% of the MRA, lower degree of predictability	<b>Hold/Neutral</b>	50%	31%
<b>Reduce 1</b>	FSR is > 10% below the MRA, higher degree of predictability	<b>Reduce 2</b>	FSR is > 10% below the MRA, lower degree of predictability	<b>Sell</b>	9%	31%

1: Percentage of companies under coverage globally within this rating category.

2: Percentage of companies within this rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS; as of 31 March 2004.

### KEY DEFINITIONS

**Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.

**Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (an approximation of the equity risk premium).

**Predictability Level** The predictability level indicates an analyst's conviction in the FSR. A predictability level of '1' means that the analyst's estimate of FSR is in the middle of a narrower, or smaller, range of possibilities. A predictability level of '2' means that the analyst's estimate of FSR is in the middle of a broader, or larger, range of possibilities.

**Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation.

**Rating/Return Divergence (RRD)** This qualifier is automatically appended to the rating when stock price movement has caused the prevailing rating to differ from that which would be assigned according to the rating system and will be removed when there is no longer a divergence, either through market movement or analyst intervention.

### EXCEPTIONS AND SPECIAL CASES

**US Closed-End Fund ratings and definitions are:** Buy: Higher stability of principal and higher stability of dividends; Neutral: Potential loss of principal, stability of dividend; Reduce: High potential for loss of principal and dividend risk.

**UK and European Investment Fund ratings and definitions are:** Buy: Positive on factors such as structure, management, performance record, discount; Neutral: Neutral on factors such as structure, management, performance record, discount; Reduce: Negative on factors such as structure, management, performance record, discount.

**Core Banding Exceptions (CBE):** Exceptions to the standard +/-10% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Companies Mentioned table in the relevant research piece.

### Companies mentioned

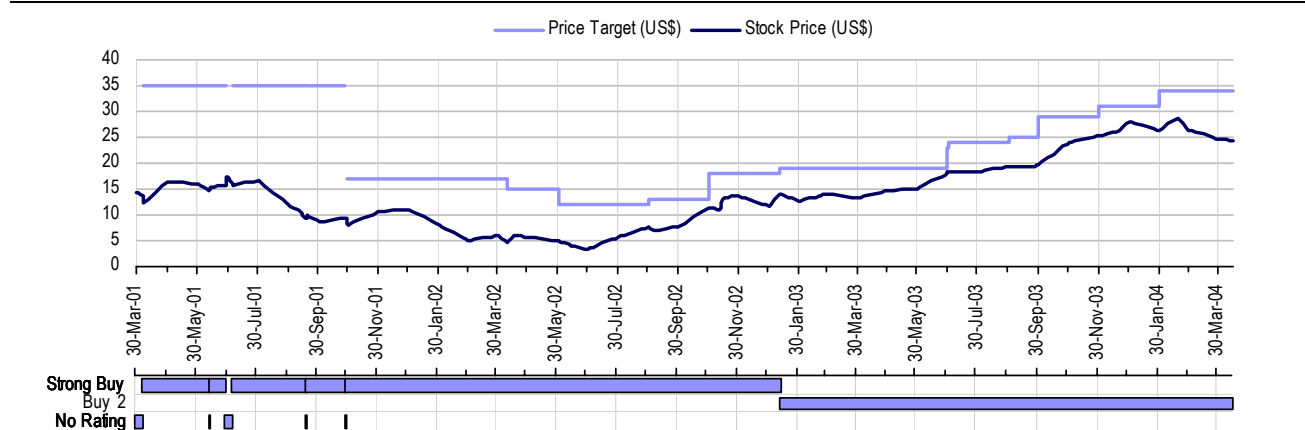
Company Name	Reuters	Rating	Price
Nextel <sup>1,3a,3b,6,10</sup>	NXTL.O	Buy 2	US\$24.21

Price(s) as of 14 April 2004. Source: UBS.

1. UBS Securities LLC makes a market in the securities and/or ADRs of this company.
- 3a. UBS AG, its affiliates or subsidiaries has acted as manager/co-manager in the underwriting or placement of securities of this company or one of its affiliates within the past five years.
- 3b. UBS AG, its affiliates or subsidiaries has acted as manager/co-manager in the underwriting or placement of securities of this company or one of its affiliates within the past 12 months.
6. The equity analyst covering this company, a member of his or her team, or one of their household members has a long common stock position in this company.
10. Within the past 12 months, UBS AG, its affiliates or subsidiaries has received compensation for investment banking services from this company.

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report.

### Nextel Communications, Inc. (US\$)



Source: UBS; as of 14 April 2004.

Note: On October 13, 2003, UBS adopted new definition criteria for its rating system. (See 'Global ratings: Definitions and allocations' table for details.) Between January 11 and October 12, 2003, the UBS ratings and their definitions were: Buy 1: Excess return potential > 15%, smaller range around price target; Buy 2: Excess return potential > 15%, larger range around price target; Neutral 1: Excess return potential between -15% and 15%, smaller range around price target; Neutral 2: Excess return potential between -15% and 15%, larger range around price target; Reduce 1: Excess return potential < -15%, smaller range around price target; Reduce 2: Excess return potential < -15%, larger range around price target. Prior to January 11, 2003, the UBS ratings and definitions were: Strong Buy: Greater than 20% excess return potential, high degree of confidence; Buy: Positive excess return potential; Hold: Low excess return potential, low degree of confidence; Reduce: Negative excess return potential; Sell: Greater than 20% negative excess return potential, high degree of confidence. Under both ratings systems, excess return is defined as the difference between the FSR and the one-year local market interest rate.

## Global Disclaimer

---

**This report was produced by:** UBS Securities LLC, an affiliate of UBS AG (UBS).

**Head office:** UBS Limited, 1 Finsbury Avenue, London, EC2M 2PP, UK Phone: +44-20-7567 8000

**Local office:** UBS Securities LLC, 1285 Avenue of the Americas, New York, NY 10019 Phone: +1-212-713 2000

This report has been prepared by UBS AG or an affiliate thereof ("UBS"). In certain countries UBS AG is referred to as UBS SA.

This report is for distribution only under such circumstances as may be permitted by applicable law. It has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. It is published solely for informational purposes and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments. No representation or warranty, either express or implied, is provided in relation to the accuracy, completeness or reliability of the information contained herein, except with respect to information concerning UBS AG, its subsidiaries and affiliates, nor is it intended to be a complete statement or summary of the securities, markets or developments referred to in the report. The report should not be regarded by recipients as a substitute for the exercise of their own judgement. Any opinions expressed in this report are subject to change without notice and may differ or be contrary to opinions expressed by other business areas or groups of UBS as a result of using different assumptions and criteria. UBS is under no obligation to update or keep current the information contained herein. UBS, its directors, officers and employees (excluding the US broker-dealer unless specifically disclosed under required disclosures) or clients may have or have had interests or long or short positions in the securities or other financial instruments referred to herein, and may at any time make purchases and/or sales in them as principal or agent. UBS (excluding the US broker-dealer unless specifically disclosed under Required Disclosures) may act or have acted as market-maker in the securities or other financial instruments discussed in this report. Furthermore, UBS may have or have had a relationship with or may provide or has provided investment banking, capital markets and/or other financial services to the relevant companies. Employees of UBS may serve or have served as officers or directors of the relevant companies. UBS may rely on information barriers, such as "Chinese Walls," to control the flow of information contained in one or more areas within UBS, into other areas, units, groups or affiliates of UBS.

The securities described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. Options, derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky. Past performance is not necessarily indicative of future results. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument mentioned in this report. For investment advice, trade execution or other enquiries, clients should contact their local sales representative. Neither UBS nor any of its affiliates, nor any of UBS' or any of its affiliates, directors, employees or agents accepts any liability for any loss or damage arising out of the use of all or any part of this report. **Additional information will be made available upon request.**

**United Kingdom and rest of Europe:** Except as otherwise specified herein, this material is communicated by UBS Limited, a subsidiary of UBS AG, to persons who are market counterparties or intermediate customers (as detailed in the FSA Rules) and is only available to such persons. The information contained herein does not apply to, and should not be relied upon by, private customers. **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. **Italy:** Should persons receiving this research in Italy require additional information or wish to effect transactions in the relevant securities, they should contact Giubergia UBS SIM SpA, an associate of UBS SA, in Milan. **South Africa:** UBS Securities South Africa (Pty) Limited (incorporating J.D. Anderson & Co.) is a member of the JSE Securities Exchange SA. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a "non-US affiliate"), to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a report prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this report must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. **Canada:** Distributed by UBS Securities Canada Inc., a subsidiary of UBS AG and a member of the principal Canadian stock exchanges & CIPF. A statement of its financial condition and a list of its directors and senior officers will be provided upon request. **Hong Kong:** Distributed by UBS Securities Asia Limited. **Singapore:** Distributed by UBS Securities Singapore Pte. Ltd. **Japan:** Distributed by UBS Securities Japan Ltd to institutional investors only. **Australia:** Distributed by UBS AG (Holder of Australian Financial Services Licence No. 231087) and UBS Securities Australia Ltd (Holder of Australian Financial Services Licence No. 231098) only to "Wholesale" clients as defined by s761G of the Corporations Act 2001. **New Zealand:** Distributed by UBS New Zealand Ltd

© 2004 UBS. All rights reserved. This report may not be reproduced or redistributed, in whole or in part, without the written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect.

